Meinberg Radio Clocks
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PCI32: DCF77 Computer Clock (PCI Bus)

DCF77 radio clock for synchronisation of computers and networks

The board PCI32 has been designed for the reception of the DCF77 signal, the transfer of the time information to a computer with PCI bus interface and the translation of the received codes into a serial telegram.

The **Windows** driver package includes a time synchronization service which runs in the background and adjusts the Windows system time continuously and invisibly. This package also includes a monitor program to enable the user to check the status of the device and time adjustment service. If the monitor program is run with administrator rights, it can also be used to modify configurable parameters.

The **Linux** and **FreeBSD** driver packages include a kernel driver which allows the product to be used as a reference time source for the NTP daemon included in most Unix-like operating systems. This also allows the computer to be used as an NTP time server to provide accurate time to NTP clients on the network. Some command line tools can be used to modify configurable parameters and monitor the status of the clock in use.

Please contact Meinberg's Support Team for more information on using the card with other operating systems: [1]techsupport@meinberg.de.

The device's serial port is not required for operation but can be used to update the card's firmware, or to provide another computer with the current time via a serial time string.

Important Note

This product is no longer available and may have been replaced by a newer product. We will, of course, continue to provide support for units that have already been purchased and are still in use. Please contact our [2]Sales Department for further details.

This product has been discontinued and has been replaced with: [3]

Key Features

- PCI LOCAL BUS interface
- Plug and play
- Pulses per second and per minute
- Periodic interrupts
- RS-232 interface

- Reception status indicated by LED
- Buffered hardware clock
- Configurable time zone
- Driver software for all popular operating systems

Characteristics

Receiver Type	Narrowband synchronous receiver with automatic gain control, Bandwidth: approx. 40Hz
Status Indicators	RF Signal: Indicated by LED, antenna alignment enhanced by utility program Free running: Indicated by LED and utility program without RF signal the clock runs on quartz basis with an accuracy of ±1·10-6 (after 24 hours of synchronous operation) Modulation: Indicated by LED and utility program
Reception Monitoring	Incoming time string undergoes multiple checks Plausibility test using two full consecutive time strings
Pulse Outputs	Pulses per second and per minute (TTL level), pulse duration: 200 msec
Serial Time String Output	Baudrate: 300, 600, 1200, 2400, 4800, 9600 baud Framing: 7E2, 8N1, 8E1, 8N2 Output string: 32 ASCII characters with date, time and status information
Statusbyte	Informations about free running mode, daylight savings time and DST pre-switch anouncement, synchronization since last reset, GMT/UTC time and validity of the hardware clock data
Electrical Connectors	9 pin sub D male connector BNC female connector
Computer interface	33MHz-PCI bus 32 bit/5V slot
Backup Battery Type	In case of supply voltage failure the on-board RTC keeps the time based on XTAL for more than 150 hours (buffer capacitor) Optional: lithium backup battery (life time: 10 years)
Board type	PCI card short
Supported Temperature	Operational: 0 - 50 °C (32 - 122 °F) Storage: -20 - 70 °C (-4 - 158 °F)
Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Contents of Shipment	Scope of supply includes an active ferrite antenna [4]AI01 and 5m of RG174 coaxial cable with BNC connectors. Optional: [5]AW02 with RG58 and patch cord, other length of cable

Manual

The English manual is available as a PDF file: [6]Download (PDF)

Links:

[1] https://www.meinbergglobal.com/english/products/

[2] mailto:sales@meinberg.de

[3] https://www.meinbergglobal.com/english/products/pzf180pex.htm

[4] https://www.meinbergglobal.com/english/products/dcf77-indoor-antenna.htm

[5] https://www.meinbergglobal.com/english/products/dcf77-outdoor-antenna.htm

[6] https://www.meinbergglobal.com/download/docs/manuals/english/pci32.pdf